

Fig. 1A

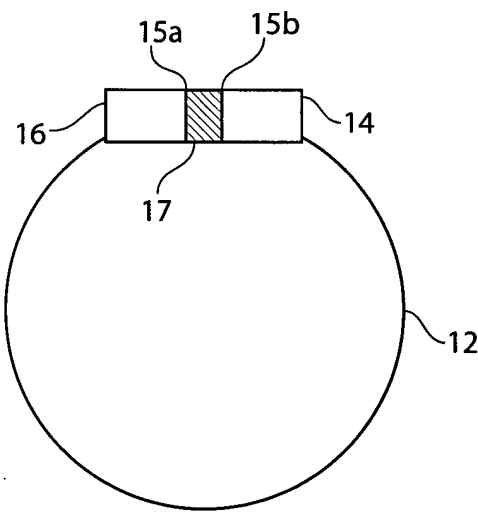


Fig. 1B

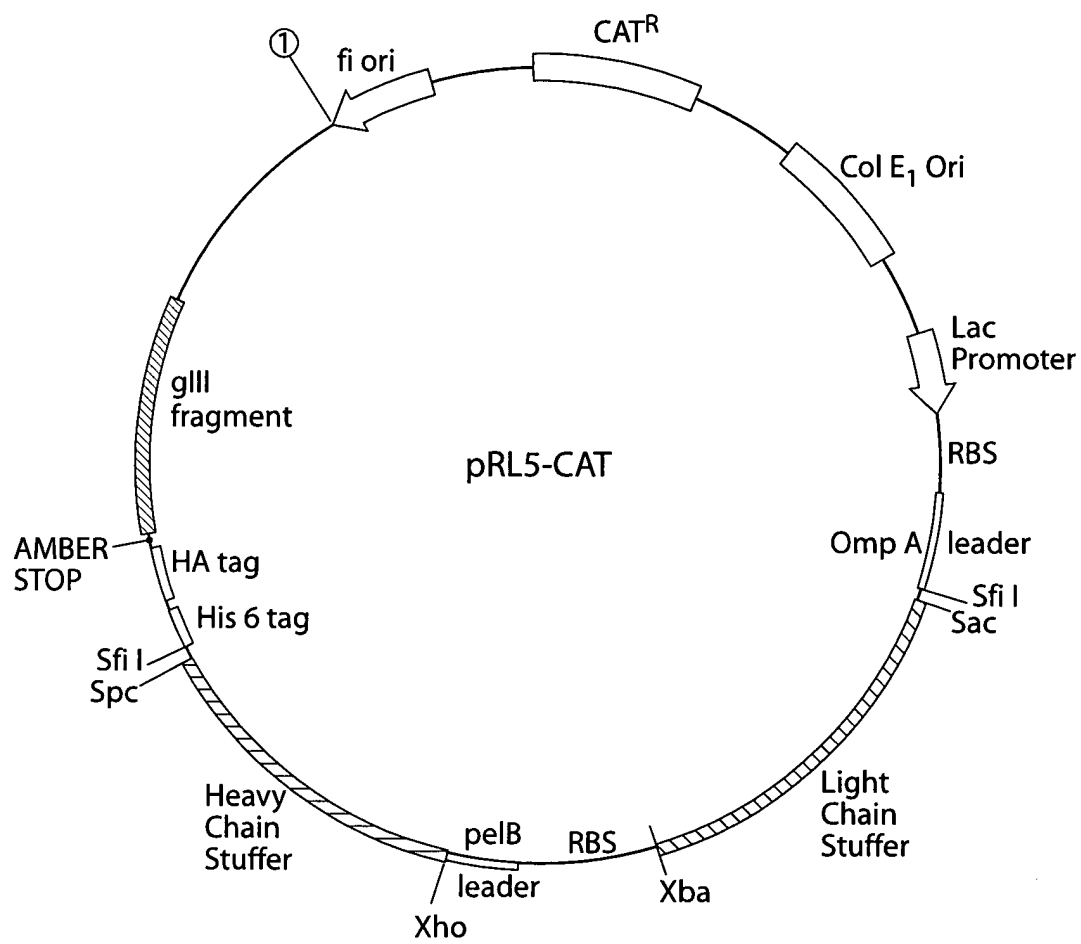


Fig. 2

PRL5-CAT

5' GGGAAATTGTAAGCGTTAATATTTTGTAAATTCGCGTTAAATTTTTGTTA
AATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAATCCCTTATAAAT
CAAAAGAATAGACCGAGATAGGGTTGAGTGTGTTCCAGTTTGAACAAGAG
TCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACCGTCTAT
CAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGTTTTTTGGGGTC
GAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAGCCCCGATTTAGA
GCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGC
GAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACCGCTGCGCGT
AACCACCACACCCGCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGC
ACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACA
TTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAAT
ATTGAAAAGGAAGAGTATGAGTATTCACATTTCCGTGTCGCCCTTATTCCC
TTTTTTGCGGCATTTTGCCTTCCTGTTTTGCTCACCCAGAAACGCTGGTGAAA
GTAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGG
ATCTCAACAGCGGTAAGATCCTTGAGAGTTTTCGCCCCGAAGAACGTTTTCCA
ATGATGAGCACTTTTCGACCGAATAAATACCTGTGACGGAAGATCACTTCGC
AGAATAAATAAATCCTGGTGTCCCTGTTGATACCGGGAAGCCCTGGGCCAAC
TTTTGGCGAAAATGAGACGTTGATCGGCACGTAAGAGGTTCCAACTTTCACC
ATAATGAAATAAGATCACTACCGGGCGTATTTTTTTGAGTTGTGAGATTTTCA
GGAGCTAAGGAAGCTAAAATGGAGAAAAAATCACTGGATATAACCACCGTT
GATATATCCCAATGGCATCGTAAAGAACATTTTGAGGCATTTTCAGTCAGTTGC
TCAATGTACCTATAACCAGACCGTTCAGCTGGATATTACGGCCTTTTTAAAGA
CCGTAAAGAAAAATAAGCACAGTTTTATCCGGCCTTTATTACATTCTTGCC
CGCCTGATGAATGCTCATCCGGAATTACGTATGGCAATGAAAGACGGTGAGC
TGGTGATATGGGATAGTGTTACCCCTTGTTACACCGTTTTCCATGAGCAAAC
GAAACGTTTTTCATCGCTCTGGAGTGAATACCACGACGATTTCCGGCAGTTTCT
ACACATATATTGCAAGATGTGGCGTGTTACGGTGAAAACCTGGCCTATTTCC
CTAAAGGGTTTATTGAGAATATGTTTTTCGTCTCAGCCAATCCCTGGGTGAGT
TTCACCAGTTTTTGATTTAAACGTGGCCAATATGGACAACTTCTTCGCCCCCGT
TTTCACCATGGGCAAATATTATACGCAAGGCGACAAGGTGCTGATGCCGCTG
GCGATTCAGGTTTCATCATGCCGTTTGTGATGGCTTCATGTCGGCAGAAATGCT
TAATGAATTACAACAGTACTGCGATGAGTGGCAGGGCGGGGCGTAATTTTTT
TAAGGCAGTTATTGGTGCCCTTAAACGCCTGGTTGCTACGCCTGAATAAGTGA
TAATAAGCGGATGAATGGCAGAAATTCGAAAGCAAATTCGACCCGGTCGTCG
GTTACAGGGCAGGGTCGTAAATAGCCGCTTATGTCTATTGCTGGTTTACCGGT
TTATTGACTACCGGAAGCAGTGTGACCGTGTGCTTCTCAAATGCCTGAGGCCA
GTTTGCTCAGGCTCTCCCCGTGGAGGTAATAATTGACGATATGATCCTTTTTT
TCTGATCAAAAAGGATCTAGGTGAAGATCCTTTTTTGATAATCTCATGACCAA
ATCCCTTAACGTGAGTTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGAT
CAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAA
CAAAAAAACCACCGCTACCAGCGGTGGTTTGTGTTGCCGGATCAAGAGCTACC
AACTCTTTTTCCGAAGGTAACCTGGCTTCAGCAGAGCGCAGATACCAAATACT
GTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACC
GCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCG

Fig. 3A

ATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGC
 GCAGCGGTGGGCTGAACGGGGGGTTTCGTGCACACAGCCCAGCTTGGAGCGA
 ACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCA
 CGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTGC
 GAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTT
 ATAGTCCTGTTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGC
 TCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTAC
 GGTTCTTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTTCTGCGTATCCC
 CTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGCTCGC
 CGCAGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAG
 CGCCCAATACGCAAACCGCCTCTCCCCGCGCGTTGGCCGATTCATTAATGCA
 GCTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGTGAGCGCAACGCAAT
 TAATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTC
 CGGCTCGTATGTTGTGTGGAATTGTGAGCGGATAACAATTGAATTCAGGAGG
 AATTTAAATGAAAAAGACAGCTATCGCGATTGCAGTGGCACTGGCTGGTTT
 CGCTACCGTGGCCAGGCGGCCGAGCTCGACTGCACTGGATGGTGGCGCTGG
 ATGGTAAGCCGCTGGCAAGCGGTGAAGTGCCTCTGGATGTCGCTCCACAAGG
 TAAACAGTTGATTGAACTGCCTGAACTACCGCAGCCGGAGAGCGCCGGGCAA
 CTCTGGCTCACAGTACGCGTAGTGCAACCGAACGCGACCGCATGGTCAGAAG
 CCGGGCACATCAGCGCCTGGCAGCAGTGGCGTCTGGCGGAAAACCTCAGTGT
 GACGCTCCCCGCCGCGTCCACGCCATCCCGCATCTGACCACCAGCGAAATG
 GATTTTTGCATCGAGCTGGGTAATAAGCGTTGGCAATTTAACCGCCAGTCAG
 GCTTCTTTCACAGATGTGGATTGGCGATAAAAAACAACCTGCTGACGCCGCT
 GCGCGATCAGTTCACCCGTGCACCGCTGGATAACGACATTGGCGTAAGTGAA
 GCGACCCGCATTGACCCTAACGCCTGGGTGCAACGCTGGAAGGCGGCGGGCC
 ATTACCAGGCCGAAGCAGCGTTGTTGCAGTGCACGGCAGATACACTTGCTGA
 TGCGGTGCTGATTACGACCGCTCACGCGTGGCAGCATCAGGGGAAAACCTTA
 TTTATCAGCCGGAAAACCTACCGGATTGATGGTAGTGGTCAAATGGCGATTA
 CCGTTGATGTTGAAGTGGCGAGCGATACACCGCATCCGGCGCGGATTGGCCT
 GAACTGCCAGCTGGCGCAGGTAGCAGAGCGGGTAACTGGCTCGGATTAGG
 GCCGCAAGAAAACCTATCCCGACCGCCTTACTGCCGCCTGTTTTGACCGCTGGG
 ATCTGCCATTGTCAGACATGTATACTGGCTGCACCATCTGTCTTCATCTTCCC
 GCCATCTGATGAGCAGTTGAAATCTGGAACCTGCCTCTGTTGTGTGCCTGCTGA
 ATAACCTTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCT
 CCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAG
 CACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAA
 CACAAAGTATATGCCTGCGAAGTCACCCATCAGGGCCTGAGCTTGCCCGTCA
 CAAAGAGCTTCAACAGGGGAGAGTGTTAGTTCTAGATAATTAATTAGGAGGA
 ATTTAAATGAAATACCTATTGCCTACGGCAGCCGCTGGATTGTTATTACTCG
 CTGCCCAACCAGCCATGGCCCTCGAGCTGATGAGCCATGGAAGCTGTGTGCG
 CTGCACCAGGCTCCACGGCTCGTGGTGCGGTGCCTTCTGGTGTTGCTGCG
 TACAGCCGACACGTCGAGCTTCGTGCCCTAGAGTTGCGCGTCACAGCAGCC
 TCCGGCGCTCCGCGATATCACCGTGTCTACATCAATGAAGTAGTGCTCCT
 AGACGCCCCCGTGGGGCTGGTGGCGCGGTTGGCTGACGAGAGCGGCCACGTA
 GTGTTGCGCTGGCTCCCGCCGCCTGAGACACCCATGACGTCTCACATCCGCTA
 CGAGGTGGACGTCTCGGCCGGCAACGGCGCAGGGAGCGTACAGAGGGTGA

Fig. 3B

GATCCTGGAGGGCCGCACCGAGTGTGTGCTGAGCAACCTGCGGGGCCGGACG
CGCTACACCTTCGCCGTCCGCGCGCGTATGGCTGAGCCGAGCTTCGGCGGCTT
CTGGAGCGCCTGGTCCGAGCCTGTGTGCTGCTGACGCCTAGCGACCTGGAC
CCCCTCATCCTGACGCTCTCCCTCATCCTCGTGGTCATCCTGGTGCTGCTGAC
CGTGCTCGCGCTGCTCTCCACCGCCGGGCTCTGAAGCAGAAGATCTGGCCT
GGCATCCCGAGCCCAGAGAGCGAGTTTGAAGGCCTCTTCACCACCCACAAGG
GTAACCTTCAGCTGTGGCTGTACCAGAATGATGGCTGCCTGTGGTGGAGCCC
CTGCACCCCCCTTCACGGAGGACCCACCTGCTTCCCTGGAAGTCCTCTCAGAGC
GCTGCTGGGGGACGATGCAGGCAGTGGAGCCGGGGACAGATGATGAGGGCC
CATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGCACAGC
GGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTGCG
TGGAACCTCAGGCGCCCTGACCAGCGGCGTGACACCTTCCCGGCTGTCCTAC
AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAG
CTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACC
AAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAAGTAGTGCCAG
GCCGGCCAGCACCATCACCATCACCATGGCGCATACCCGTACGACGTTCCGG
ACTACGCTTCTTAGGAGGGTGGTGGCTCTGAGGGTGGCGGTTCTGAGGGTGG
CGGCTCTGAGGGAGGCGGTTCCGGTGGTGGCTCTGGTTCGGGTGATTTTGATT
ATGAAAAGATGGCAAACGCTAATAAGGGGGCTATGACCGAAAATGCCGATG
AAAACGCGCTACAGTCTGACGCTAAAGGCAAACCTTGATTCTGTCGCTACTGA
TTACGGTGCTGCTATCGATGGTTTCATTGGTGACGTTTCCGGCCTTGCTAATG
GTAATGGTGCTACTGGTGATTTTGCTGGCTCTAATTCCCAAATGGCTCAAGTC
GGTGACGGTGATAATTCACCTTTAATGAATAATTTCCGTCAATATTTACCTTC
CCTCCCTCAATCGGTTGAATGTCGCCCTTTTGTCTTTAGCGCTGGTAAACCAT
ATGAATTTTCTATTGATTGTGACAAAATAAACTTATTCCGTGGTGTCTTTGCG
TTTCTTTTATATGTTGCCACCTTTATGTATGTATTTTCTACGTTTGCTAACATA
CTGCGTAATAAGGAGTCTTAAGCTAGCTAATTAATTTAAGCGGCCGCAGATC
T3'

Fig. 3C

(SEQ. ID No. 1)

Ssp I
|

GGGAAATTGTAAGCGTTAATATTTTGTAAATTCGCGTTAAATTTTGTAAATCAGC
|....|....|....|....|....|....|....|....|....|....|.... 59

Psi I
|

TCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAGAATAGAC
 |....|....|....|....|....|....|....|....|....|....|....|.... 118

CGAGATAGGGTTGAGTGTGTCCAGTTTGAACAAGAGTCCACTATTAAAGAACGTGG
 .|....|....|....|....|....|....|....|....|....|....|....|.. 177

Drd I
|

Ade I
Dra III
|

ACTCCAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCA
 ..|....|....|....|....|....|....|....|....|....|....|....|. 236

TCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAA
 ...|....|....|....|....|....|....|....|....|....|....|....| 295

NgoM IV
|

Nae I
|

AGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAG
|....|....|....|....|....|....|....|....|....|....|.... 354

BsrB I
Mbi I
|

GGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGC
 |....|....|....|....|....|....|....|....|....|....|....|... 413

Fig. 4A

GTAACCAACCACCCGCGCTTAATGCGCCGCTACAGGGCGCGTCAGGTGGCACTTT
· | ···· | ···· | ···· | ···· | ···· | ···· | ···· | ···· | ···· | ···· | .. 472

TCGGGGAATGTGC GCGGAACCCCTATT TGT TTATTTTCTAAATACATTCAAATATGT
..|. . . |. . . |. . . |. . . |. . . |. . . |. . . |. . . |. . . |. . . |. . . |. 531

BsrB I
 Mbi I
 BspH I
 Bci VI
 Ssp I
 Ear I
 ATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGT
 ...|...|...|...|...|...|...|...|...|...|...|...|...| 590

ATGAGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCATTTCGCCTTCC
|....|....|....|....|....|....|....|....|....|....|.... 649

	Amp frag
--	----------

[illegible]

Amp frag

[illegible]

Amp frag

Fig.4B

[illegible]

Fig. 4C

9/29

Pvu II Dra I
 | |
 TTCAGCTGGATATTACGGCCTTTTAAAGACCGTAAAGAAAATAAGCACAAAGTTTAT
 ...|...|...|...|...|...|...|...|...|...|...|...|...| 1180

Chloramphenicol transferase

BsaM I
 |
 Acc III
 |
 SnaB I
 |
 CCGGCCTTTATTACATTCTTGCCCGCCTGATGAATGCTCATCCGGAATTACGTATGGC
|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|..... 1239

Chloramphenicol transferase

BseMI
 BsrDI
 |
 AATGAAAGACGGTGAGCTGGTGATATGGGATAGTGTTACACCTTGTTACACCGTTTTCC
 |...|...|...|...|...|...|...|...|...|...|...|...|... 1298

Chloramphenicol transferase

[illegible]

Chloramphenicol transferase

TTTCTACACATATATTCGCAAGATGTGGCGTGTTACGGTGAAAACCTGGCCTATTTCCTCC

Chloramphenicol transferase

Fig. 4D

10/29

BsmB I
Esp3 I Van91 I
| |
TAAAGGGTTTATTGAGAATATGTTTTTCGTCTCAGCCAATCCCTGGGTGAGTTTCACCA
...|...|...|...|...|...|...|...|...|...|...|...|...| 1475

Chloramphenicol transferase

Bal I Bsp19 I

Dra I Msc I Nco I

| | |

GTTTTGATTAAACGTGGCCAATATGCACAACTTCTTCGCCCGTTTTCACCATGGGC

.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|..... 1534

Chloramphenicol transferase

Ssp I
|
AAATATTATACGCAAGGCGACAAGGTGCTGATGCCGCTGGCGATTCAGGTTTCATCATGC
|...|...|...|...|...|...|...|...|...|...|...|...|... 1593

Chloramphenicol transferase

[illegible]

Chloramphenicol transferase

AGTGGCAGGGCGGGGCGTAATTTTTTTAAGGCAGTTATTGGTGCCCTTAAACGCCTGGT
 ..|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 1711

Fig.4E

11/29

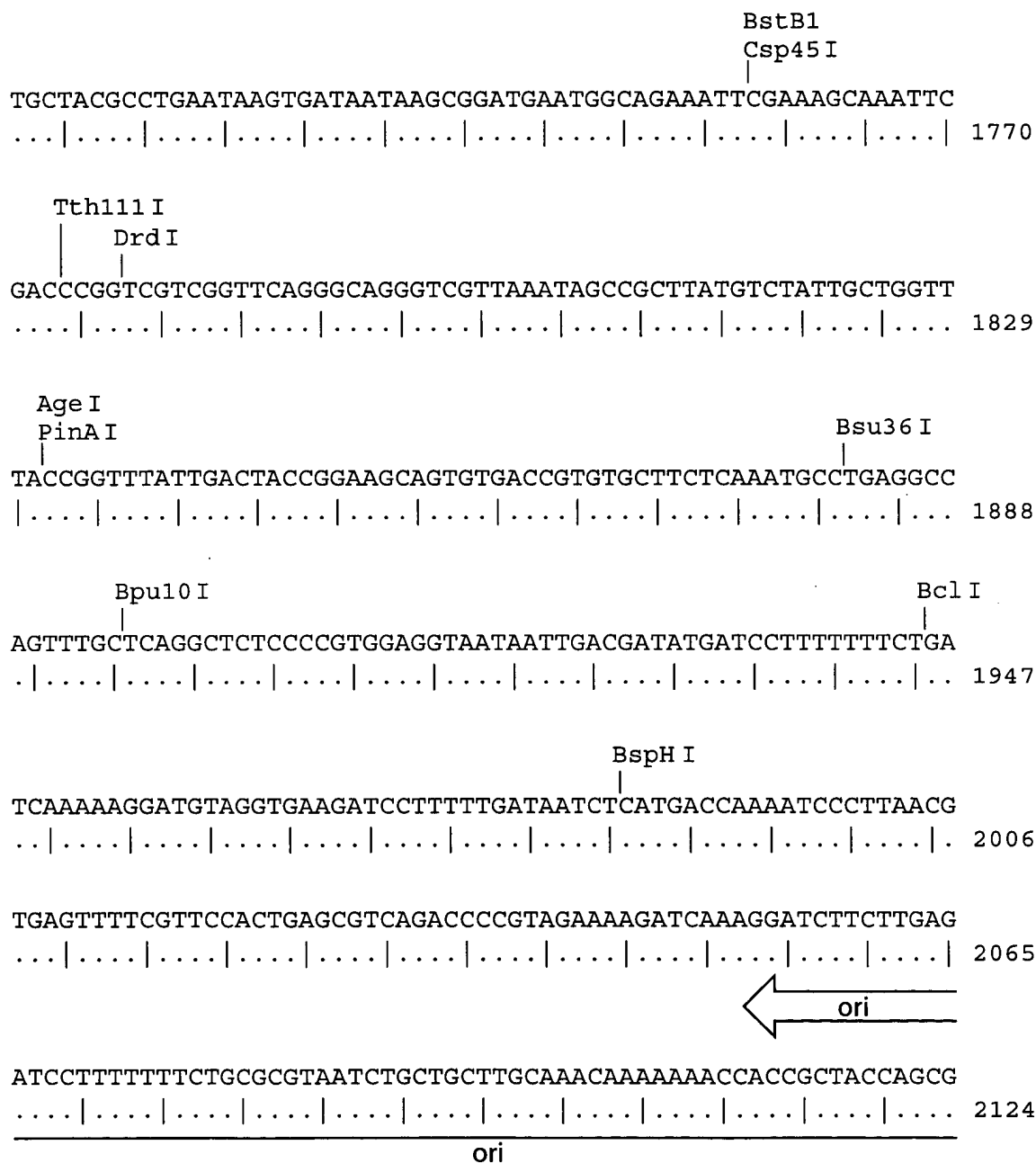


Fig. 4F

12/29

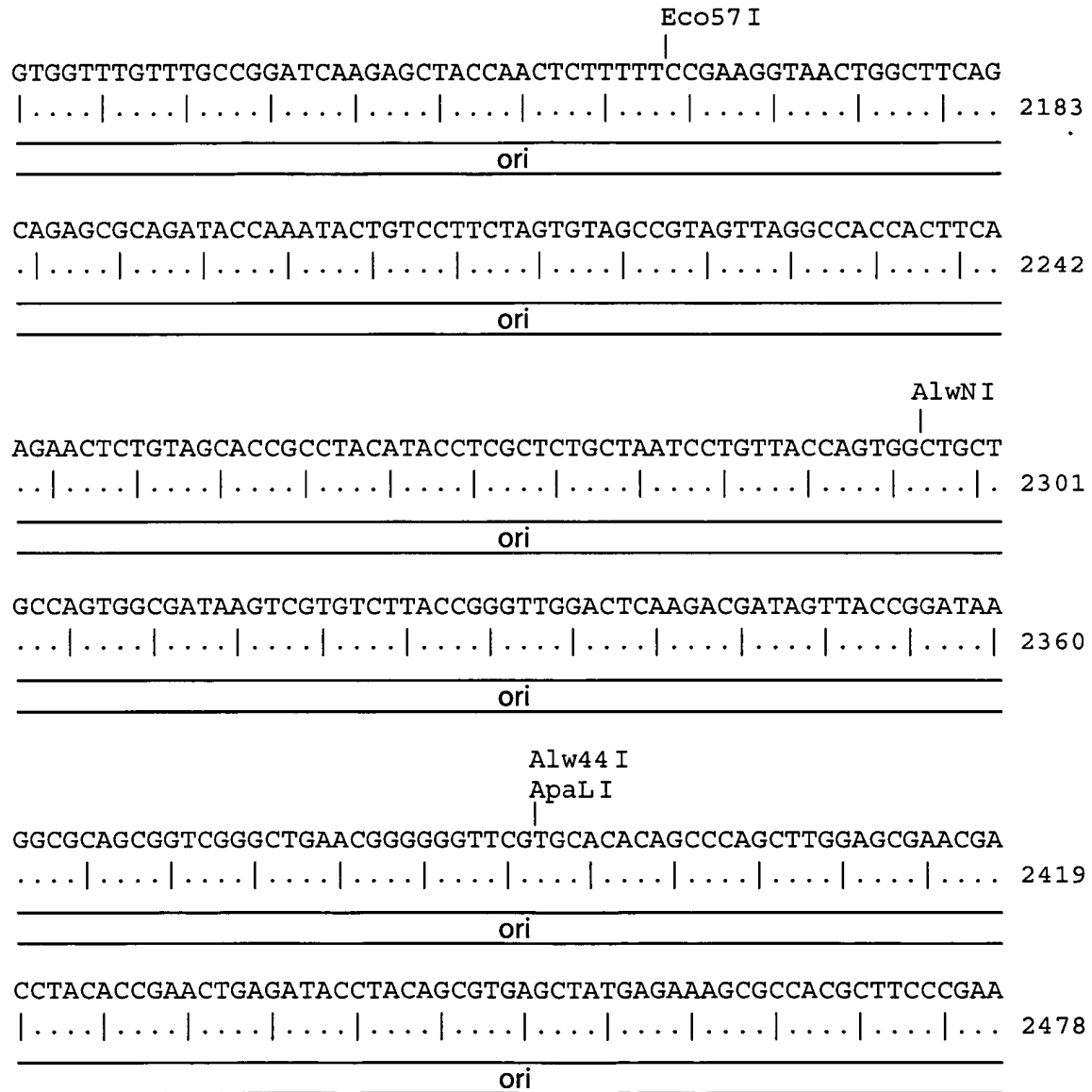


Fig. 4G

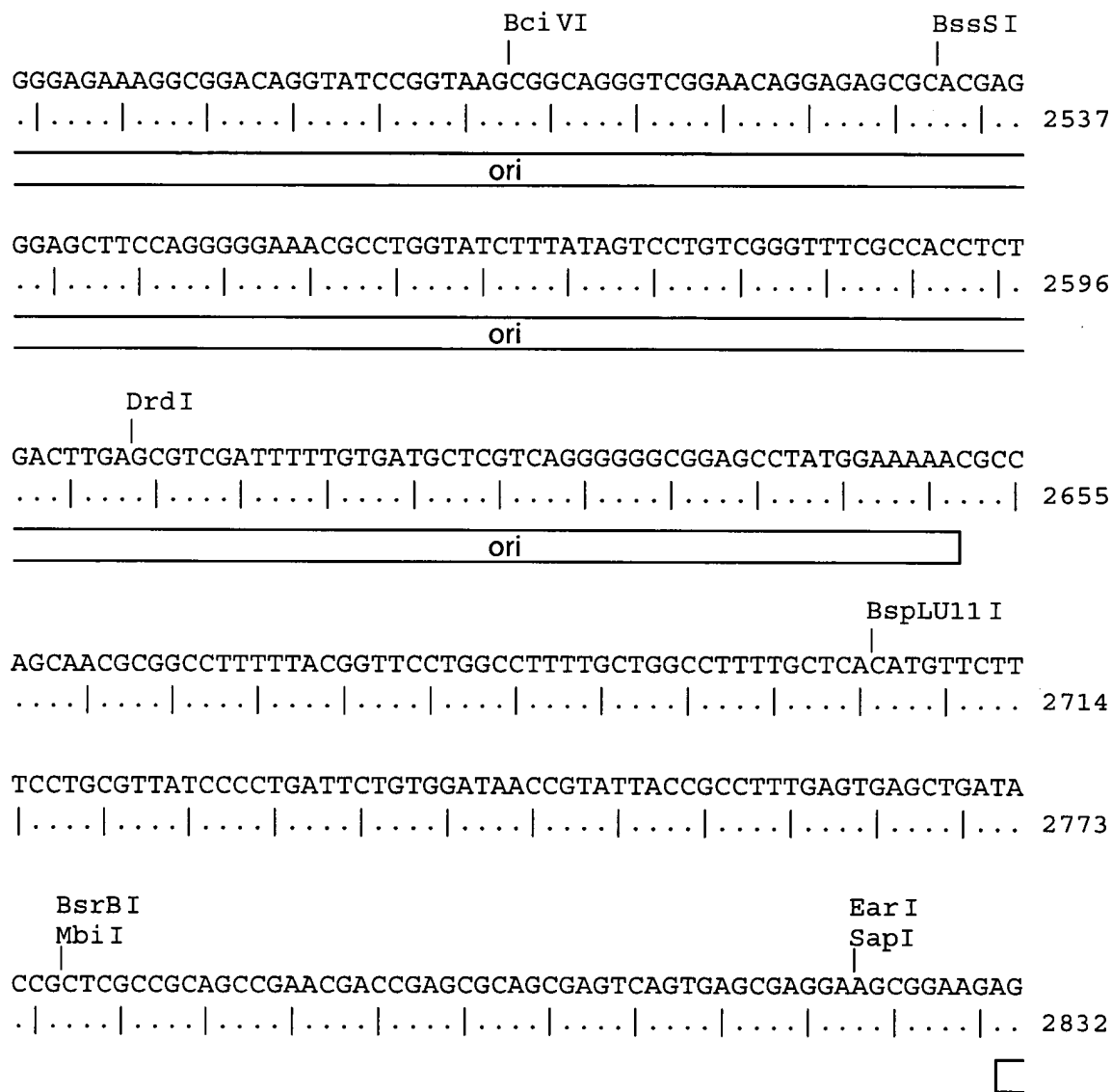


Fig. 4H

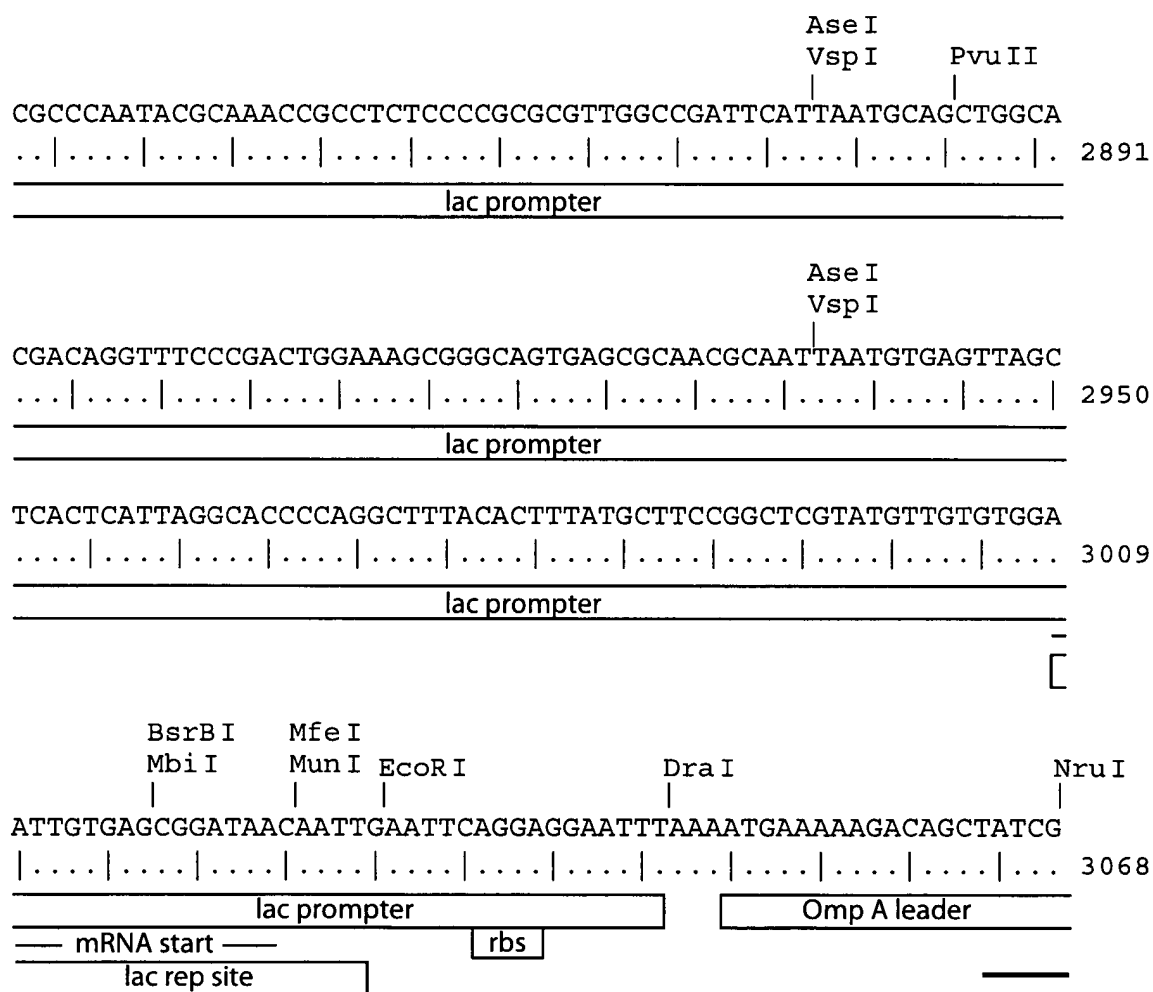



Fig. 4I

Omp A leader

 n-omp
  Omp A cleavage

LCV stuffer

LCV stuffer

LCV stuffer

LCV stuffer

Fig. 4J

Xcm I
 BstX I
 GCCGCGTCCCACGCCATCCCGCATCTGACCACCAGCGAAATGGATTTTTCATCGAGCT 3422

 LCV stuffer

 Bgl I
 GGGTAATAAGCGTTGGCAATTTAACCGCCAGTCAGGCTTTCTTTCACAGATGTGGATTG 3481

 LCV stuffer

 Alw44 I
 ApaI
 GCGATAAAAAACAAC TGCTGACGCCGCTGCGCGATCAGTTCACCCGTGCACCGCTGGAT 3540

 LCV stuffer

 AACGACATTGGCGTAAGTGAAGCGACCCGATTGACCCTAACGCCTGGGT CGAACGCTG 3599

 LCV stuffer

 Alw44 I
 ApaI
 GAAGGCGGCGGGCCATTACCAGGCCGAAGCAGCGTTGTTGCAGTGCACGGCAGATACAC 3658

 LCV stuffer

Fig. 4K

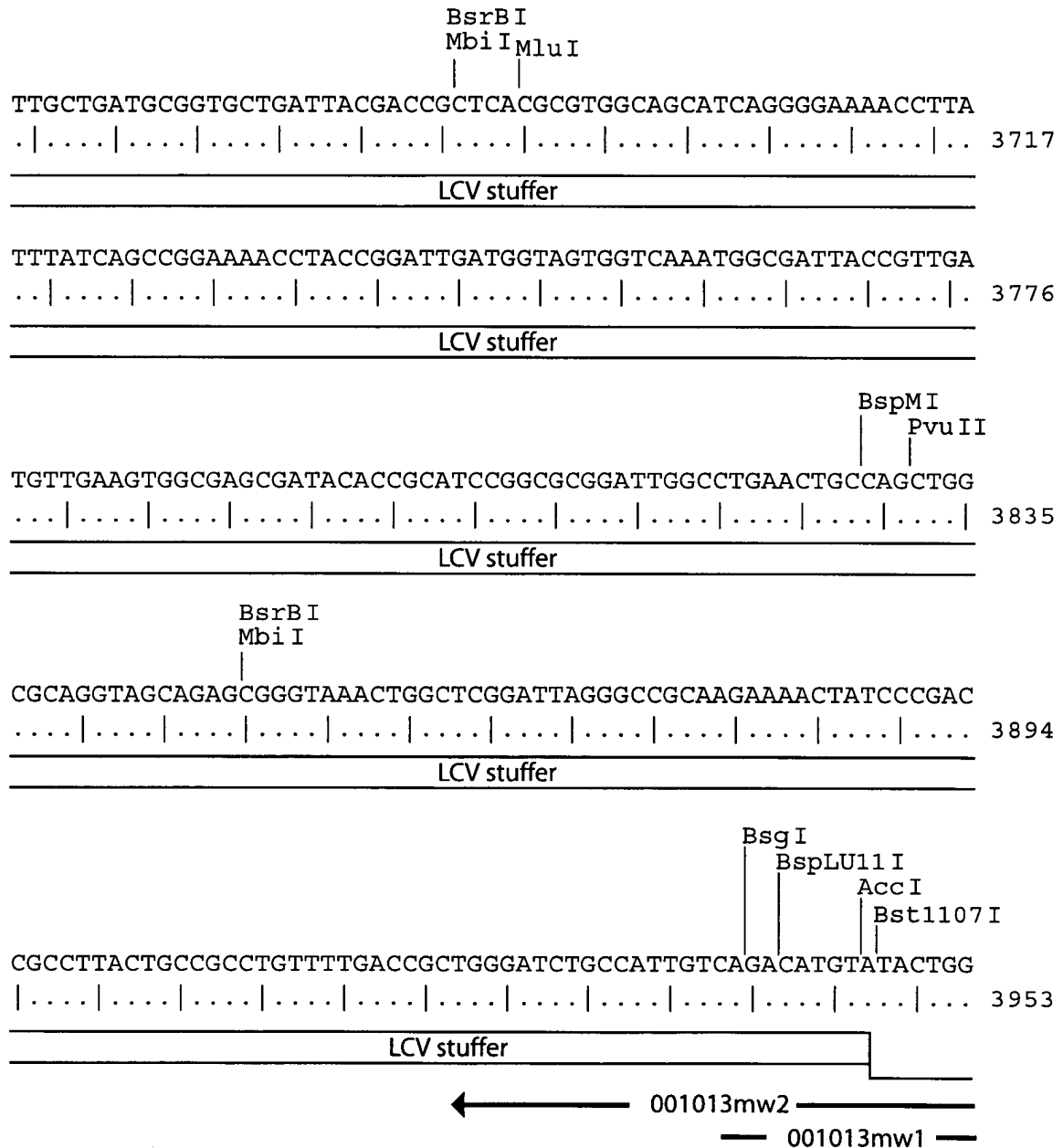


Fig. 4L

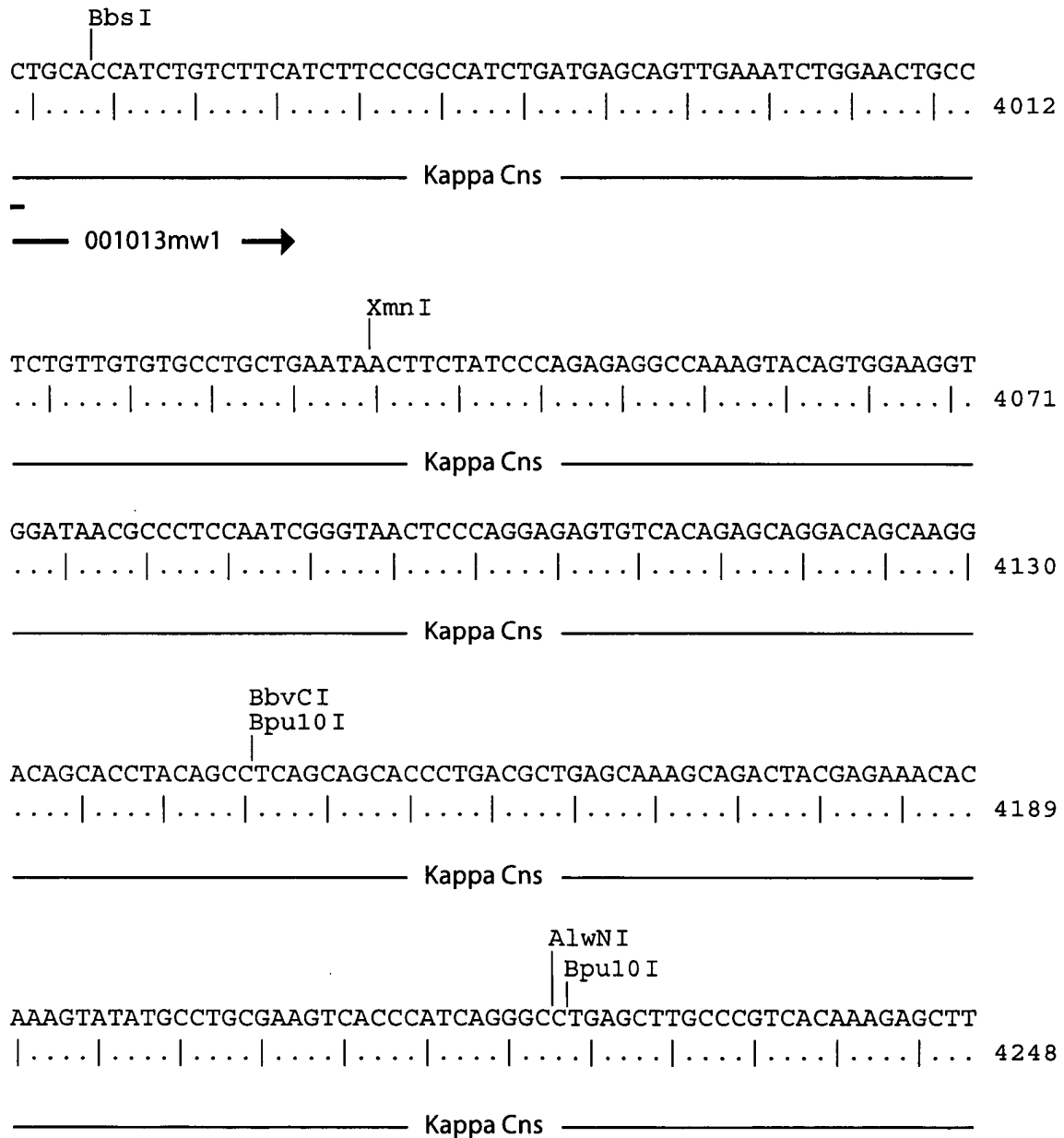


Fig. 4M

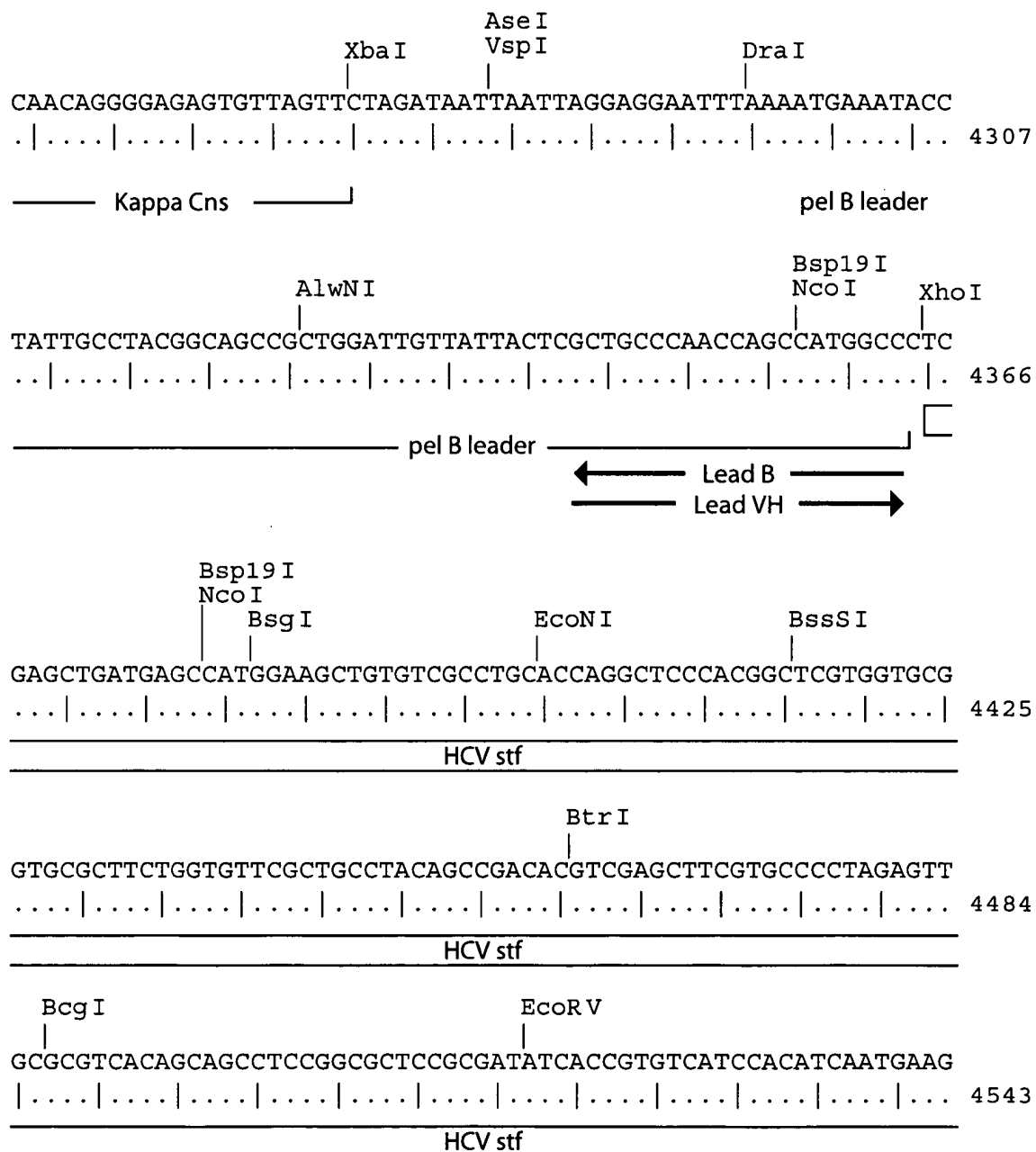


Fig. 4N

[illegible]

Fig. 40

[illegible]

Fig. 4P

BseR I
 CCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCA
 ..|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 5251
 EcoN I

Age I
 PinA I
 Tth111 I
 Kas I
 Nar I
 Ehe I
 Bbe I
 AGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGGCGCCCTGACCAGCGGC
 ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 5310

Alw44 I
 ApaL I
 Bsu36 I
 BbvC I
 Bpu10 I
 Bpm I
 BstE II
 GTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGT
|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 5369

BstX I
 GACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
 |. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 5428

Bcu I
 Spe I
 Bcu I
 Bal I
 Msc I
 CCAGCAACACCAAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAAGTACTAGTGGC
 .|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. ...|. 5487

└

Fig.4Q

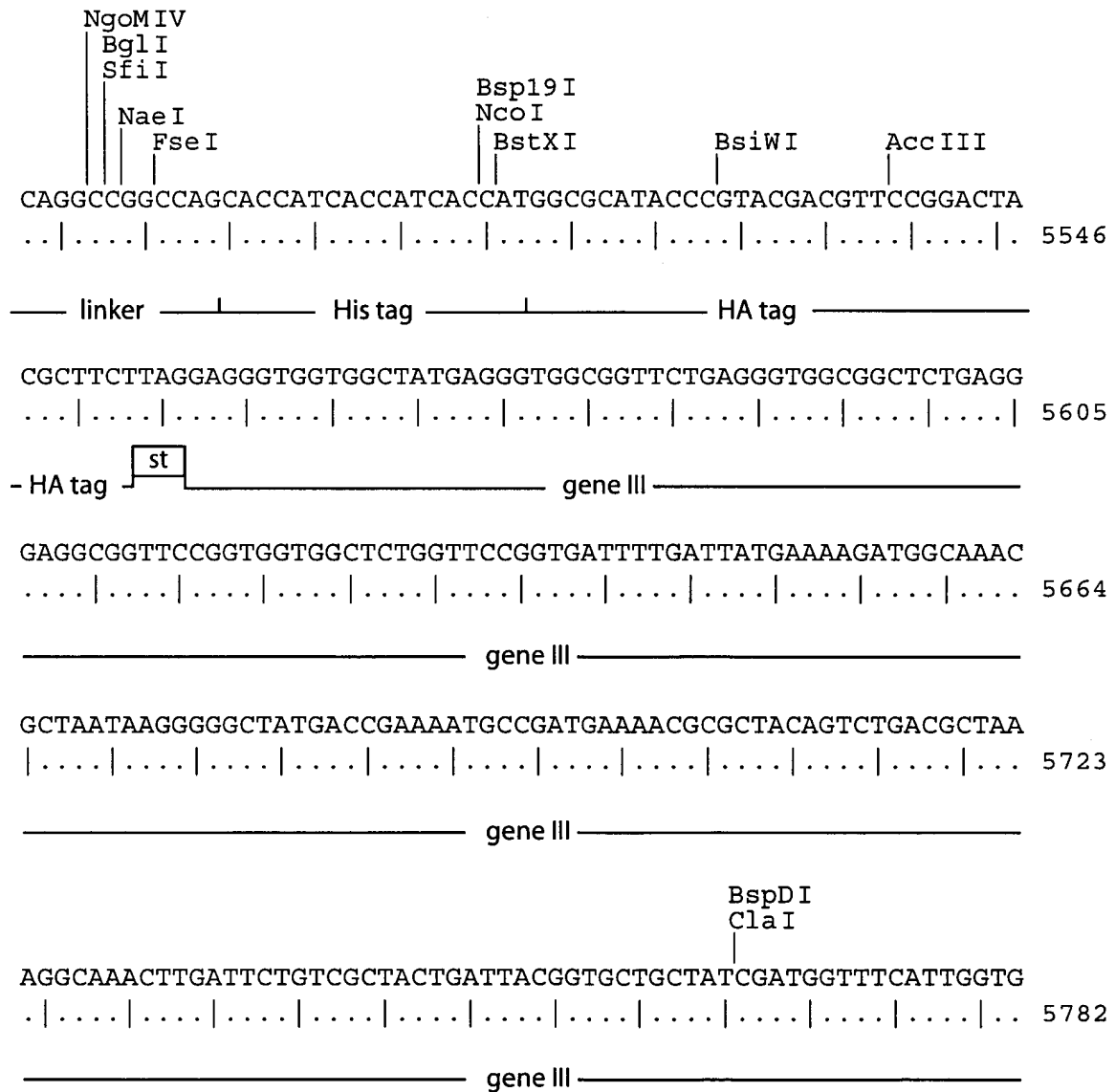


Fig. 4R

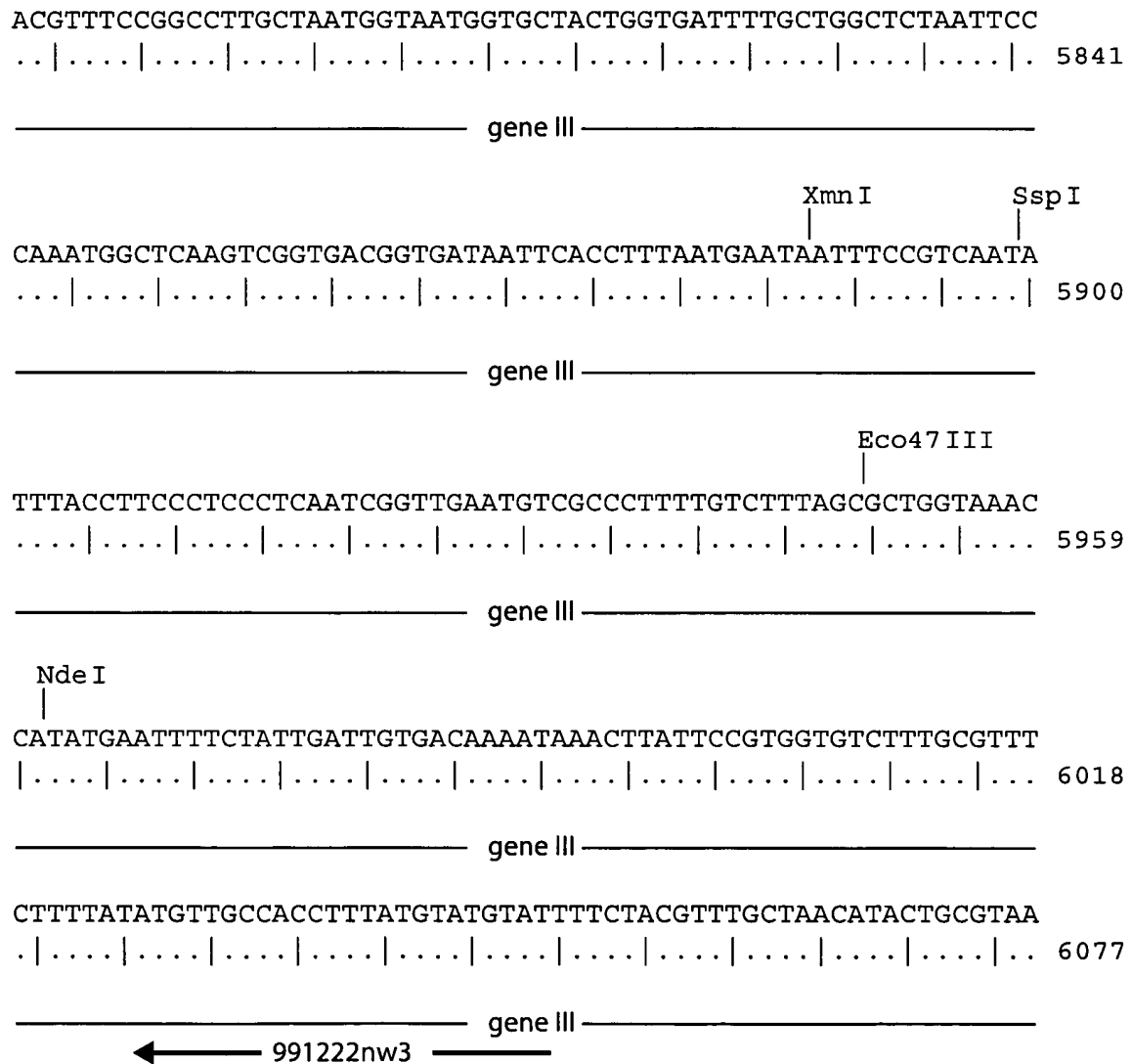


Fig. 4S

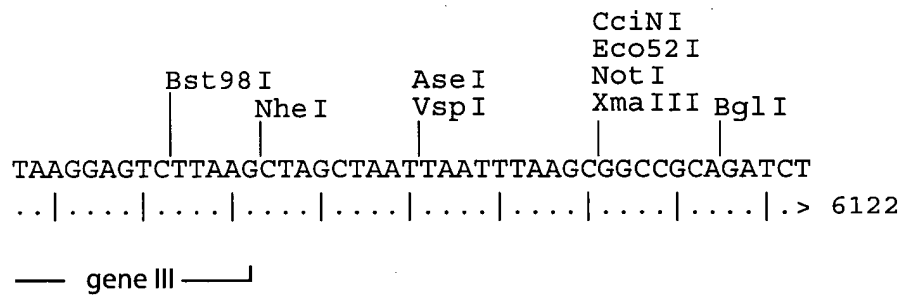


Fig.4T

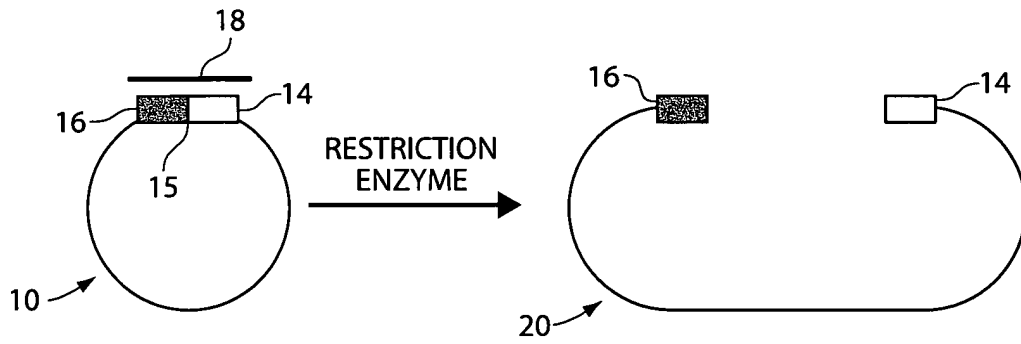


Fig. 5A

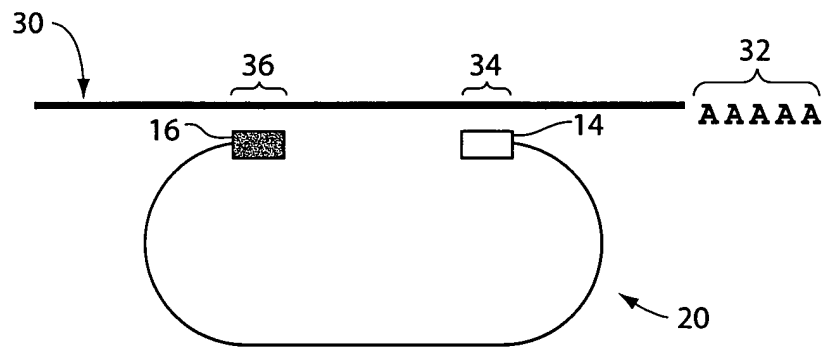


Fig. 5B

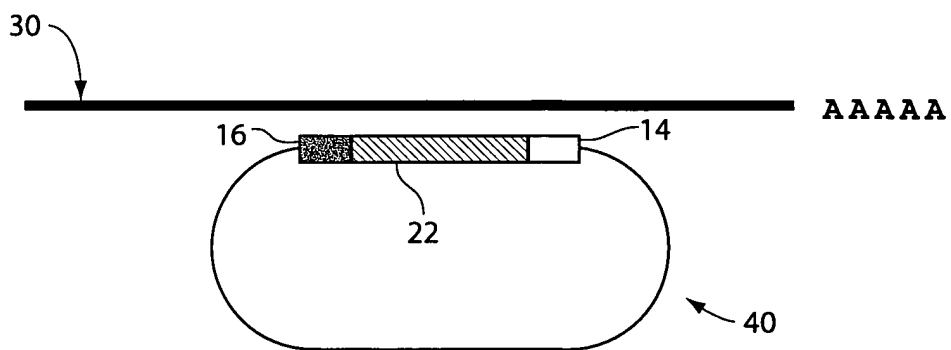


Fig. 5C

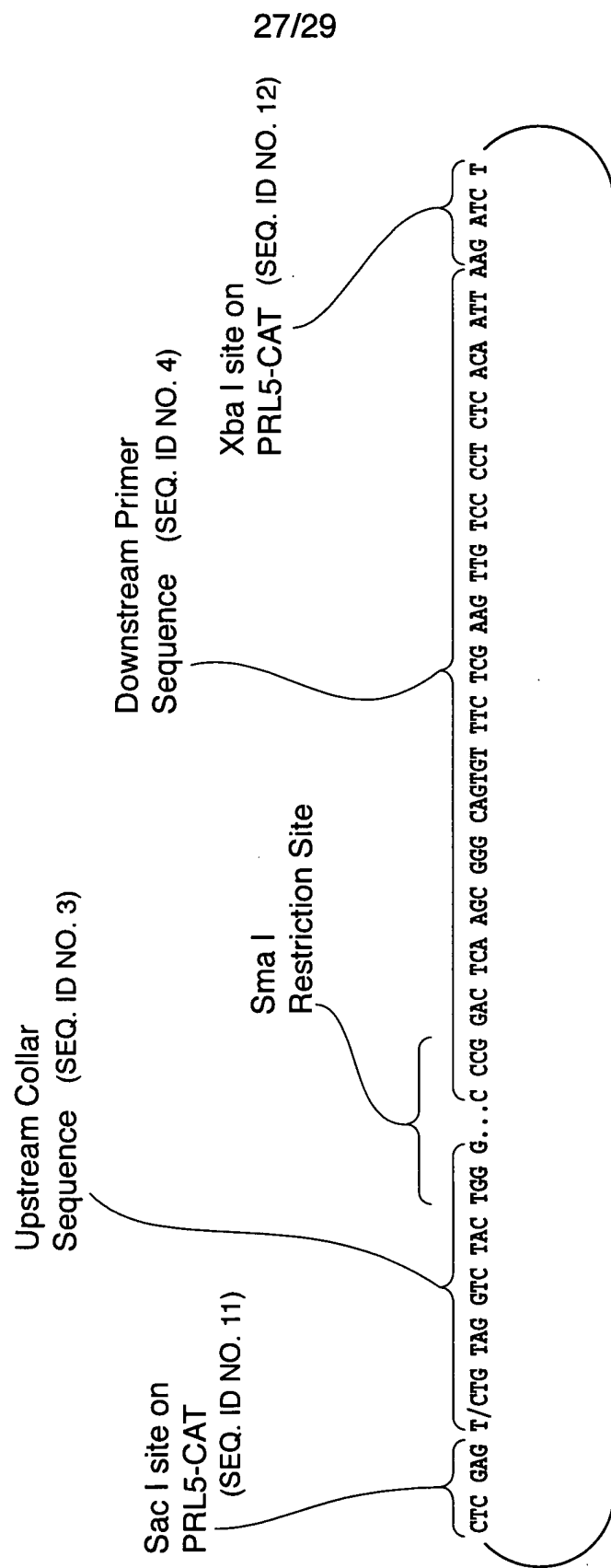


Fig. 6A

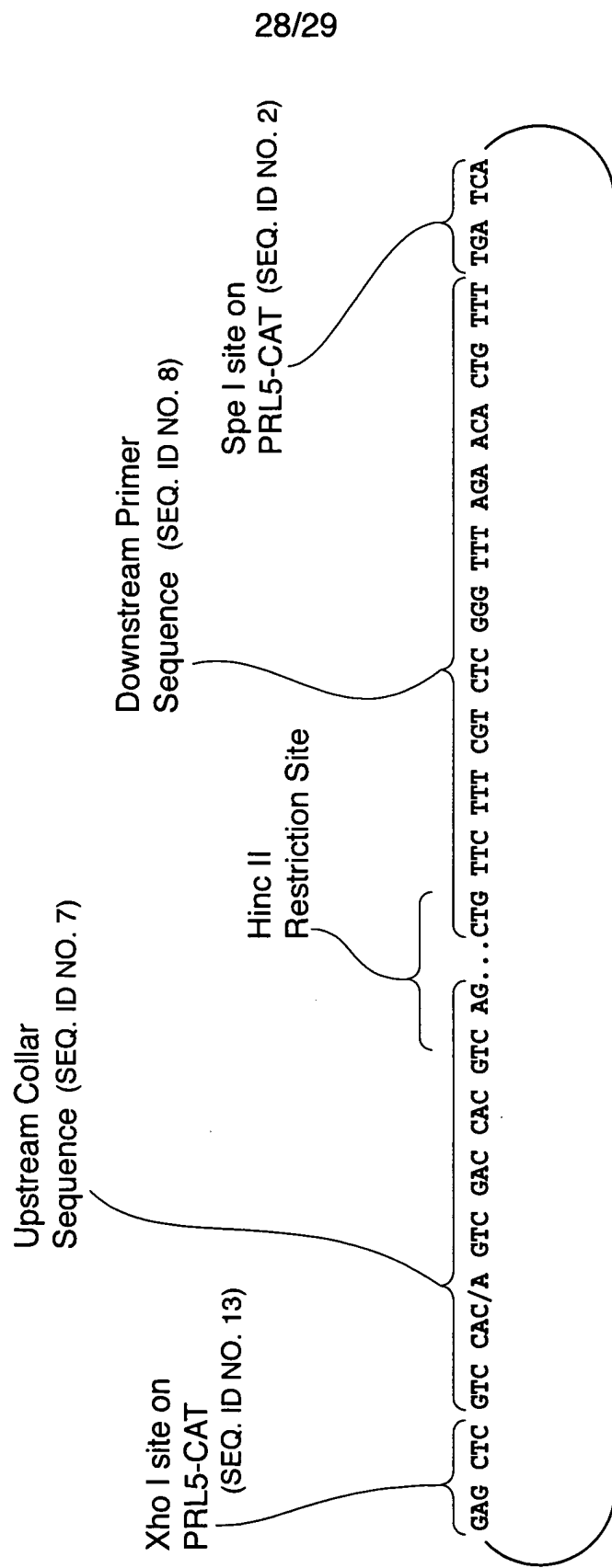


Fig.6B

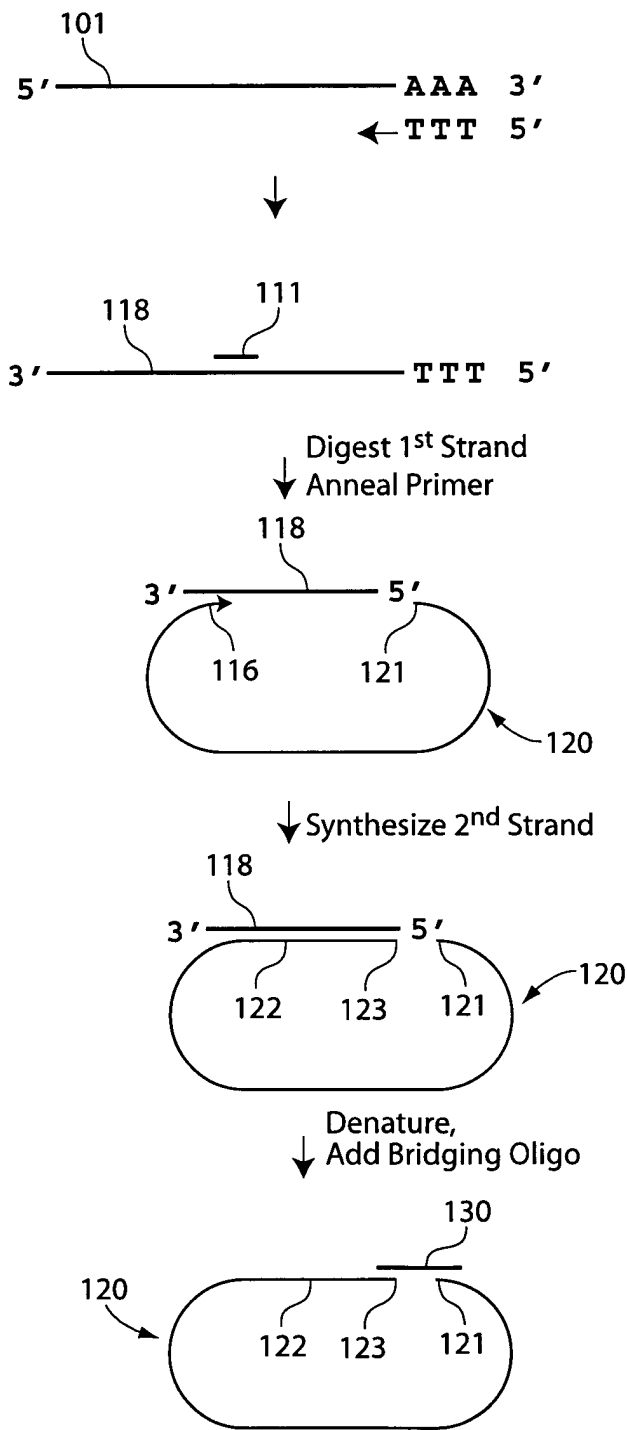


Fig. 7